

REMARKS/ARGUMENTS

Examiner Dravininkas is thanked for his ongoing review of our application.

Overview of the invention:

As track densities increase, it becomes increasingly important to prevent accidentally writing data outside the boundaries of a track, including on an adjacent track. A secondary lower magnetic pole design for a write head is described that achieves this by being closer to the ABS than the primary lower pole. It takes the form of a ledge that terminates at the ABS, said ledge resting on a non-magnetic layer.

Reconsideration is requested of the rejection of claims 4-10 under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US 6,791,793) in view of Takano et al. (US 2002/0080521):

Concerning claim 4, examiner continues to argue that, by turning Chen's FIG. 7 upside down, a structure that is patently indistinguishable from our FIG. 4 (as described in our claim 4) will be obtained. To further buttress this position, examiner has provided us with an appropriately modified drawing of Chen's fig. 7.

Examiner then argues that "one of ordinary skill in the art would realize that the main pole is not 102, but rather that ..... ". As examiner will agree, Chen states quite clearly that 102 is the main pole (see, for example, six statements to this effect in Chen column 6 alone). So, in order for Chen's fig. 7 (as modified by examiner) to be patently indistinguishable from our FIG. 4, examiner has found it necessary to change the function of at least one of Chen's elements. This, we submit, renders examiner's argument invalid as we discuss further below.

As we continue to compare our FIG. 4 to Chen's (modified) fig. 7, we note the absence (in Chen) of an equivalent to our element 13 (referenced in our claim 4 as a

write gap). The **geometrical** equivalent in Chen of our element 13 is the space between Chen's elements 90 and 102. However, said space includes the three insulation regions that support, surround, and cover write coils 94, as well as write coils 94 themselves. Consequently said space has a very high magnetic reluctance, making it impossible for it to serve as a usable write gap in a peripheral recording write head (the type of recording head disclosed by the present invention). In fact, what the modified version of Chen's fig. 4 shows is little more than a horseshoe magnet laying on its side.

For the structure portrayed in Chen's fig. 4 (whether modified or not) to function as a PERPENDICULAR RECORDING WRITE HEAD (Chen's self-description), element 192 must be the main pole and the recording medium must include a magnetically soft underlayer to provide a return flux path, a feature that is not part of the present invention.

In summary, a major difference between Chen's fig. 7 and our FIG. 4 is the absence of a usable write gap in Chen's structure.

Concerning claims 5-10:

Applicant believes that, based on the foregoing arguments, the rejection of claim 4 under 35 USC 103 has now been overcome and notes that claims 5-10 are all dependent on claim 4 and therefore are believed to no longer be subject to rejection under 35 USC 103.

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Amdt. dated 05/08/2010  
Reply to Office action of 04/12/2010

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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